

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A device for protecting a circuit against a polarity reversal of a connection to a D.C. power supply, the device comprising:
a controllable switch interposed on said connection between a first terminal of a first voltage of said D.C. power supply and a first terminal of said circuit; and
first means for turning-off the switch with a turn-off delay in the presence of a reverse polarity; and
second means for turning on the switch with a turn-on delay shorter than the turn-off delay, when the polarity is normal.
2. (Previously Presented) The device of claim 1, wherein said turn-off delay is chosen to be greater than a duration of transient polarity reversals.
3. (Original) The device of claim 1, wherein said first terminal of the circuit to be protected is a ground connection terminal.
4. (Original) The device of claim 1, wherein said first means comprise a microcontroller having an output controlling, directly or via a selective delay element, said switch.
5. (Original) The device of claim 1, wherein said switch is a MOS transistor with an N channel.
6. (Original) The device of claim 5, wherein said first means comprise a first resistor connecting the gate of the transistor to said first terminal of the circuit to be protected.
7. (Original) The device of claim 6, wherein a second resistor in series with a diode connects a terminal of the device connected to a second voltage of the D.C. power supply.

8. (Previously Presented) The device of claim 7, wherein a zener diode is connected in parallel with the first resistor.
9. (Currently Amended) A circuit, comprising:
 - a switch operable to conduct a current to a first node of a power supply when the first node has a predetermined polarity relative to a second node of the power supply; and
 - a first delay element coupled to the switch and operable to disable the switch from conducting current at a predetermined time after the polarity reverses.
10. (Currently Amended) The apparatus of claim 9 wherein the first delay element disables the switch in response to a normal condition of the current.
11. (Currently Amended) The apparatus of claim 9, further comprising a second delay element disabling the switch in response to a normal condition of the current.
12. (Currently Amended) The apparatus of claim 9 wherein:
 - the switch comprises a transistor, and
 - the first delay element is operable to discharge the gate capacitance of the transistor.
13. (Original) A method, comprising:
 - conducting a current between first and second supply nodes when the first node has a predetermined polarity relative to a second node; and
 - disabling the conducting of current at a predetermined time after the polarity inverts.
14. (Original) The method of claim 13 wherein disabling the conducting comprises transmitting a signal.
15. (Original) The method of claim 13 wherein the conducting of current is disabled in response to a normal condition of the current.

16. (Original) The method of claim 13 wherein the first and second supply nodes are coupled to a DC power supply.

17. (Currently Amended) A system, comprising:

a load;

a power supply coupled to the load;

a switch operable to conduct a current to a first node of the power supply when the first node has a predetermined polarity relative to a second node of the power supply; and

a first delay element coupled to the switch and operable to disable the switch from conducting current at a predetermined time after the polarity reverses.

18. (Currently Amended) A vehicle, comprising:

a system, comprising:

a load;

a power supply coupled to the load;

a switch operable to conduct a current to a first node of the power supply when the first node has a predetermined polarity relative to a second node of the power supply; and

a first delay element coupled to the switch and operable to disable the switch from conducting current at a predetermined time after the polarity reverses.

19. (Original) The vehicle of claim 18 wherein the power supply is a DC power supply.

20. (Currently Amended) An integrated circuit, comprising:

a switch operable to conduct a current to a first node of a power supply when the first node has a predetermined polarity relative to a second node of the power supply; and

a first delay element coupled to the switch and operable to disable the switch from conducting current at a predetermined time after the polarity reverses.